

An OpenGL Toolbox II

CS 420

Objectives:

- Gain experience using GLUT menus.
- See the variety of geometric shapes made available in GLUT and have a first look at lighting in OpenGL.
- See the equivalence between `glFrustum()` and `glPerspective()`, and how to correct aspect ratio issues created by resizing a window.
- See how to use viewports to restrict drawing within a window.
- See how to create and use multiple windows.

Experiments

- Experiment 3.17 and Exercise 3.20.
- Experiment 3.19.
- Experiment 3.20.
 1. This is our first look at a 3-D program using OpenGL's lighting abilities. Study `setup()` and the end of `drawScene()` to see the code.
- Experiments 3.22 and 3.23.
 1. Why does changing `gluPerspective()`'s `aspect` parameter eliminate the distortion?
- Experiment 3.24 and Exercise 3.29.
- Experiment 3.25 and Exercise 3.31.